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5. (Amended) A process as claimed in claim 1 or 2, wherein 1.0 to 1.2 equivalents of base are used per equivalent of the phosphine oxide.

6. (Amended) A process as claimed in claim 1 or 2, wherein 1.0 to 1.35 equivalents of tert-butyl 2-[(4R,6S)-6-formyl-2,2-dimethyl-1,3-dioxan-4-yl]acetate are used per equivalent of the phosphine oxide.

REMARKS

I. STATUS OF THE CLAIMS

Claims 1-10 are pending in this application. Claims 1-3 and 7 have been allowed. Claims 4-6 have been amended. No new matter has been introduced by these amendments. A version showing the changes made to claims 4-6 is attached herein as "Version With Markings To Show Changes Made."

II. STATUS OF THE ABSTRACT

In response to the Examiner's request, Applicants enclose the Abstract on a single sheet of paper containing no other data. No amendments have been made to the Abstract as filed.

III. THE REJECTION UNDER 35 U.S.C. § 112, 5th paragraph

Claims 4-6 are rejected under 35 U.S.C. § 112, 5th paragraph for improper multiple dependency.

Based on the Examiner's rejection, Applicants have amended claims 4-6 to satisfy the requirements of 35 U.S.C. § 112, 5th paragraph. Therefore, Applicants respectfully request that this rejection of claim 4-6 be withdrawn.

IV. THE REJECTION UNDER 35 U.S.C. § 102(b)

Claim 8 is rejected under 35 U.S.C. § 102(b) as being anticipated based upon the Examiner's assertion that "Applicants seem to be saying that BEM is known." Claim 8 is directed to the compound, tert-butyl (E)-(6-{2-[4-(4-fluorophenyl)-6-isopropyl-2-[methyl(methylsulfonyl)amino]pyrimidin-5-yl]vinyl})(4R,6S)-2,2-dimethyl[1,3]dioxan-4-yl)acetate, which is referred to by the acronym "BEM" (see page 1, lines 4-10).

Applicants respectfully traverse this rejection, in that BEM is not disclosed in the prior art, and there is nothing in the specification that states to the contrary. Moreover, any implication that the Examiner might be reading from the specification, that "Applicants seem to be saying that BEM is known," is expressly contradicted by the inclusion of claim 8 in this application as filed, which is a positive assertion by applicants of their belief that the compound BEM is not known. If this ground for rejection is nevertheless maintained, it is respectfully requested that the Examiner identify the particular wording in the specification that is thought to support this ground, so that applicant can more specifically address this rejection.

V. THE REJECTION UNDER 35 U.S.C. § 103(a)

Claims 9 and 10 are rejected under 35 U.S.C. § 103(a) as being obvious in view of the five "Y"-designated references cited in the International Search Report of the corresponding PCT International Application No.: GB00/00481. Applicants respectfully traverse this rejection.

Claim 9 recites the manufacture of the compound represented by Formula IV through a three-step process. Step 1 recites the reaction of diphenyl [4-(4-fluorophenyl)-6-isopropyl-2-[methyl(methylsulfonyl)amino]-pyrimidin-5-ylmethyl]phosphine oxide (referred to as "DPPO" at page 2, line 12 to page 3, line 1 of the specification) with tert-butyl 2-[(4R,6S)-6-formyl-2,2-dimethyl-1,3-dioxan-4-yl]acetate (referred to as "BFA" at page 2, lines 1-2 of the specification) to give BEM. Step 2 recites the cleavage of the dihydroxy protecting group of BEM and step 3 recites the cleavage of the tert-butyl ester group to provide the compound of Formula IV. When the acronyms of the recited compounds are used in place of their more formalistic nomenclature, the three steps of claim 9 can be more simply viewed as the following:

- Step 1: DPPO is reacted with BFA to give BEM.
- Step 2: The dihydroxy protecting group of BEM is cleaved.
- Step 3: The tert-butyl ester group is cleaved to give Formula IV.

DPPO is claimed as a composition in claim 7, and the Examiner has recognized the novelty and nonobviousness of DPPO by the allowance of claim 7. Moreover, as discussed above, BEM as claimed in claim 8 is believed to be novel and nonobvious. Therefore, the compound represented by Formula IV is prepared by reacting a novel, nonobvious compound (DPPO) with BFA to give a novel, nonobvious intermediate (BEM) which is transformed in two steps to Formula IV. Given these facts, it is respectfully submitted that the process of claim 9 is not *prima facie* obvious upon consideration of the comparable facts and holding of the Federal Circuit in *In re Ochiai*, 37 USPQ2d 1127 (Fed. Cir. 1995).

In *Ochiai*, Applicant used a novel, nonobvious carboxylic acid to acylate a known amine to give a novel, nonobvious cephem amide. In holding that Applicant's process invention was not *prima facie* obvious, the Court stated that a person having no knowledge of the novel carboxylic acid "could hardly find it obvious to make any cephem using this acid as an acylating agent, much less the particular cephem recited in claim 6." *Id.* at p. 1131. The Court continued:

In other words, it would not have been obvious to those of ordinary skill in the art to choose the particular acid of claim 6 as an acylating agent for the known amine for the simple reason that the particular acid was unknown but for Ochiai's disclosure in the '492 application. As one of our predecessor courts had occasion to observe, in a case involving a highly analogous set of facts, "one cannot choose from the unknown." [*In re Mancy*, 499 F.2d 1289, 1293, 182 USPQ 303, 306 (CCPA 1974)].

(*Id.* at p. 1131).

Applying *Ochiai* to the present facts and claim 9, it would not have been obvious to those of ordinary skill in the art to choose DPPO for the reaction with BFA to prepare BEM (which is then converted to the compound of Formula IV), for the reason that DPPO is unknown but for Applicants' disclosure in the present application. Therefore, Applicants respectfully request that the rejection of claim 9 under 35 U.S.C. § 103(a) be withdrawn.

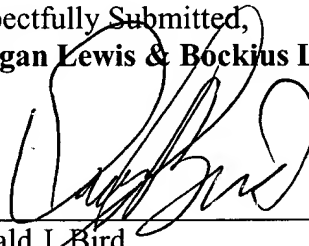
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Claim 10 recites the manufacture of the compound represented by Formula VI through reaction of DPPO with the protected diol represented by Formula V. Analogously to the discussion above regarding the unobviousness of claim 9 in light of *Ochiai*, the process of claim 10 is also unobvious because DPPO, a novel, unobvious compound, is used in the preparation of the compound of Formula VI.. It would not have been obvious to those of ordinary skill in the art to choose DPPO for the reaction with the protected diol represented by Formula V, for the reason that DPPO is unknown but for Applicants' disclosure in the present application. Again, as the Court noted in *Ochiai* "one cannot choose from the unknown." *Id.* at 1131. Applicants therefore respectfully request that the rejection of claim 10 under 35 U.S.C. § 103(a) be withdrawn as well.

VI. CONCLUSION

Applicants respectfully request reconsideration of the subject application in view of the above amendments and remarks. The subject application is now in condition for allowance and early notice to that effect is respectfully solicited.

Respectfully Submitted,
Morgan Lewis & Bockius LLP



By: _____

Donald J. Bird
Registration No. 25,323
Tel. No.: (202) 739-5320
Fax No.: (202) 739-3001

Date: February 10, 2003
Morgan Lewis & Bockius LLP
Customer No. **009629**
1111 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
Tel. No.: 202-739-3000
DJB:mk

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IN THE CLAIMS:

4. (Amended) A process as claimed in claim 1 or 2 [1, 2 or 3], wherein the reaction is carried out in a solvent selected from tetrahydrofuran, dimethoxyethane and toluene, and mixtures thereof.

5. (Amended) A process as claimed in [any one of] claim[s] 1 or 2 [1 to 4], wherein 1.0 to 1.2 equivalents of base are used per equivalent of the phosphine oxide.

6. (Amended) A process as claimed in [any one of] claim[s] 1 or 2 [1 to 4], wherein 1.0 to 1.35 equivalents of tert-butyl 2-[(4R,6S)-6-formyl-2,2-dimethyl-1,3-dioxan-4-yl]acetate are used per equivalent of the phosphine oxide.